

John J. ...
MCP

U.S. DEPARTMENT OF LABOR **DMS 2008**
Occupational Safety & Health Administration
MATERIAL SAFETY DATA SHEET FEB 19 1982

SECTION I	
MANUFACTURER'S NAME E. I. du Pont de Nemours & Co., Inc.	EMERGENCY TELEPHONE NO. (302) 774-2421
ADDRESS (Number, Street, City, State, and ZIP Code) 1007 Market Street, Wilmington, DE 19898	
CHEMICAL NAME AND SYNONYMS Polyvinyl Fluoride	TRADE NAME AND SYNONYMS Tedlar® PVF Film
CHEMICAL FAMILY Fluoropolymer	FORMULA (CH ₂ CHF) _n

SECTION II HAZARDOUS INGREDIENTS						
PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)	
PIGMENTS			BASE METAL			
CATALYST			ALLOYS			
VEHICLE			METALLIC COATINGS			
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX			
ADDITIVES			OTHERS			
OTHERS						
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES					%	TLV (Units)
Tedlar is produced in clear and colored (pigmented) types. Total pigment concentrations range from about 12-30 weight percent.						

SECTION III PHYSICAL DATA			
BOILING POINT (°F)	n.a.	SPECIFIC GRAVITY (H ₂ O=1)	~1.35
VAPOR PRESSURE (mm Hg.)	n.a.	PERCENT VOLATILE BY VOLUME (%)	<1
VAPOR DENSITY (AIR=1)	n.a.	EVAPORATION RATE (g/m ² /hr)	n.a.
SOLUBILITY IN WATER	insol.		
APPEARANCE AND ODOR	Clear or pigmented odorless film		

SECTION IV FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (Method used)	not applicable	FLAMMABLE LIMITS	not applicable
EXTINGUISHING MEDIA	Water, chemical, CO ₂		
SPECIAL FIRE FIGHTING PROCEDURES	Self-contained respirator advised to avoid exposure to hydrogen fluoride (HF).		
UNUSUAL FIRE AND EXPLOSION HAZARDS	HF is a combustion product. HF has a TLV of 3 ppm.		

NOTICE FROM DU PONT

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	not applicable
EFFECTS OF OVEREXPOSURE	not applicable
EMERGENCY AND FIRST AID PROCEDURES	None, except for combustion products in case of fire.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	None known
INCOMPATIBILITY (Materials to avoid) none known			
HAZARDOUS DECOMPOSITION PRODUCTS HF, CO combustion products			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	None known

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Not applicable
WASTE DISPOSAL METHOD	Landfill

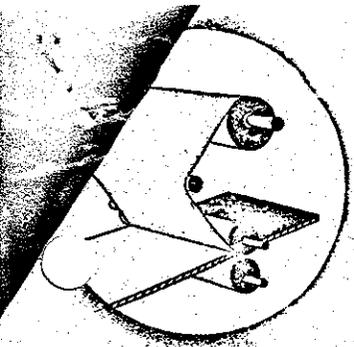
SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) None, except during combustion		
VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES	Not required	EYE PROTECTION
OTHER PROTECTIVE EQUIPMENT		

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	No special precautions
OTHER PRECAUTIONS	None known

Please refer to Du Pont Tedlar® Technical Bulletin No. 3, "Safety Considerations - Tedlar® PVF Film" attached.



NOTERIALS AND PROCESSING INFORMATION

Tedlar[®] PVF FILM

BULLETIN

No. 3

SAFETY CONSIDERATIONS "TEDLAR" PVF FILM

Laboratory studies by Du Pont and experience by Du Pont and processors in handling polyvinyl fluoride film have shown that "Tedlar", as such, presents no health hazard. Repeated skin contact by personnel produced no allergic reactions and ingestion by laboratory animals had no detrimental effect. The major hazard associated with the use of "Tedlar" involves accidental exposure to hydrogen fluoride produced by combustion or thermal decomposition under unusual conditions. It is pertinent to note that vegetation is particularly sensitive to damage by hydrogen fluoride.

CONVERTING OR PROCESSING

The film has been processed routinely at temperatures near and above 400°F., and for short times as high as 450-480°F., using ordinary industrial work area ventilation. Higher temperatures or prolonged heating may cause film discoloration and evolution of hydrogen fluoride. The latter causes strong eye and nose irritation before approaching systemically toxic levels. Under conditions where hydrogen fluoride is evolved, ventilation adequate to eliminate these symptoms of irritation must be provided before processing can be continued without discomfort and danger to personnel. (1) The concentration of hydrogen fluoride should not exceed 3 ppm per volume of air, the threshold limit value.

WASTE DISPOSAL

With properly designed and controlled facilities, hydrogen fluoride, like other potentially dangerous industrial gases, can be vented into the atmosphere routinely without creating an air pollution problem. Since vegetation is particularly sensitive to hydrogen fluoride, if proper incineration equipment is not available, disposal by burial is recommended.

FINISHED PRODUCTS

Either as an exterior or interior finish, "Tedlar" will not contribute significantly to the danger associated with fire in a residential or industrial structure. The combustion of construction materials and furnishings will produce oxygen deficient atmospheres and toxic combustion products in far greater concentrations than those coming from "Tedlar" or other finishes.

STORAGE

Since "Tedlar" does not readily support combustion, large stocks of film would not be expected to burn unless stored with flammable material. Standard fire prevention and control practices should provide adequate protection.

NOTE: We believe this information is the best currently available on the subject. It is offered as a possible helpful suggestion in experimentation you may care to undertake along these lines. It is subject to revision as additional knowledge and experience are gained. Du Pont makes no guarantee of results and assumes no obligation or liability whatsoever in connection with this information. This publication is not license to operate under, or intended to suggest infringement of, any existing patents.

(1) For further guidance regarding exposure to hydrogen fluoride refer to the American Industrial Hygiene Association Quarterly Vol. 17, P. 98, published in 1956.

* Du Pont Registered Trademark



FM 422 9-74

**"TEDLAR"®
HANDLING PRACTICES**

FABRICATION AND CONVERTING

In fabricating or converting "TEDLAR" PVF film, the film can be processed routinely at temperatures near and above 400°F, and for short times as high as 450 - 480°F, using ordinary industrial work area ventilation. Higher temperatures or prolonged heating may cause film discoloration and evolution of hydrogen fluoride.

WASTE DISPOSAL

It is preferable to dispose of "TEDLAR" by burying. If burned, corrosive fumes will be liberated which may injure vegetation and cause irritation to sensitive membranes.

"TEDLAR" IS A DU PONT TRADEMARK

John:
This label on each
every package of "Tedlar" PVF
film shipped from our
plant.

Jim